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Date of Deposit: September 15, 2003

Attorney Docket No. 21402-074CON

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANTS : Taupier et al.  
SERIAL NUMBER : 10/624,932 EXAMINER : Not Yet Assigned  
FILING DATE : July 21, 2003 ART UNIT : Not Yet Assigned  
FOR : Novel Proteins and Nucleic Acids Encoding Same

**Mail Stop IDS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL LETTER**

Transmitted herewith for filing in the present application are the following documents:

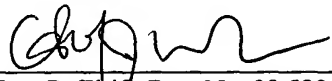
1. Information Disclosure Statement (2 pages);
2. Modified Form 1449/PTO (3 pages), in duplicate;
3. Cited References A1; B1-B5; and C1-C66; and
4. Return Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

The Commissioner is authorized to charge any fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 21402-074CON (Cura-374CON). A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

September 15, 2003

*for*  Reg 48223

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**INFORMATION DISCLOSURE STATEMENT**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449 (submitted in duplicate) in the above-identified application. The order of presentation of the references should not be construed as an indication of the importance of the references.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action based on the merits in the above-identified case. Accordingly, no fee or certification is believed required.

The references indicated on the attached modified Form PTO-1449 are enclosed herewith. It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and signs the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

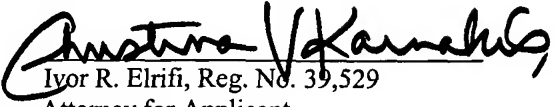
Serial No.

Applicants: Taupier et al.

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Account No. 50-0311, Reference No. 21402-074CON (Cura-374CON).

Respectfully submitted,

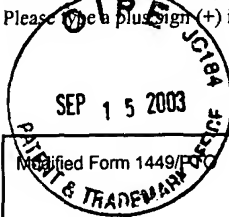
September 15, 2003

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	<b>Applicati n Num b r</b>	10/624,932
	<b>Filing Date</b>	July 21, 2003
	<b>First Named Inventor</b>	Taupier
	<b>Group Art Unit</b>	Not Yet Assigned
	<b>Examiner Name</b>	Not Yet Assigned
	<b>Attorney Docket Number</b>	21402-074CON (Cura-374CON)

**U.S. PATENT DOCUMENTS**

Exam Initials	Cite No.	U.S. Patent Document No.	Issue/ Publication Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date if Appropriate
	A1	2002/0025554A1	02/28/02	Khodadoust			02/20/01

**FOREIGN PATENT DOCUMENTS**

Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No
	B1	WO 98/37085	The Regents of the University of California	08/27/1998	
	B2	WO 00/73328	Devgen NV	12/07/2000	
	B3	WO 00/75358	Millennium Pharmaceuticals, Inc.	12/14/00	
	B4	WO 01/57262	Hyseq, Inc.	8/9/01	
	B5	WO 02/24733	Curagen Corporation	3/28/02	

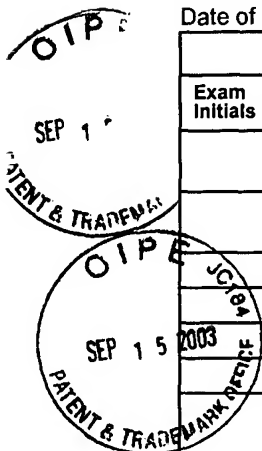
**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

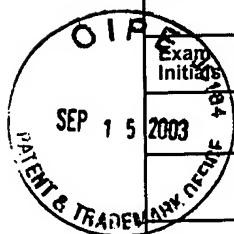
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C1	SPTREMBL Accession Number: <b>Q9W175</b> (May 1, 2001)
	C2	Alderborn et al. (2000). "Determination of single-nucleotide polymorphisms by real-time pyrophosphate DNA sequencing." <i>Genome Res</i> 10(8): 1249-1258.
	C3	GenBank Accession Number: <b>M34043</b> (April 27, 1993)
	C4	GenBank Accession Number: <b>CAC22713</b> (January 17, 2001)
	C5	Cavaliere et al. (1977). "Synthesis of human interferon by <i>Xenopus laevis</i> oocytes: two structural genes for interferons in human cells." <i>Proc Natl Acad Sci U S A</i> 74(8): 3287-3291.
	C6	Chany et al. (1980). "Induction of delta 3(4) ketosteroid synthesis by interferon in mouse adrenal tumour cell cultures." <i>J Gen Virol</i> 50(2): 447-450.
	C7	GenBank Accession Number: <b>L20861</b> (March 17, 1994)
	C8	SWISSPROT Accession Number: <b>P41221</b> (February 1, 1996)
	C9	SPTREMBL Accession Number: <b>O95450</b> (August 20, 2001)
	C10	GenBank Accession Number: <b>AF128113</b> (March 31, 1999)
	C11	SPTREMBL Accession Number: <b>Q9WUC7</b> (November 1, 1999)
	C12	SPTREMBL Accession Number: <b>Q9W735</b> (October 16, 2001)
	C13	SPTREMBL Accession Number: <b>P82295</b> (August 20, 2001)
	C14	Derynck et al. (1980). "Isolation and structure of a human fibroblast interferon gene." <i>Nature</i> 285(5766): 542-547.
	C15	SPTREMBL Accession Number: <b>Q19188</b> (November 1, 1996)
	C16	SPTREMBL Accession Number: <b>P49014</b> (June 1, 1994)
	C17	GenBank Accession Number: <b>L02426</b> (September 27, 1993)
	C18	GenBank Accession Number: <b>X02958</b> (March 30, 1995)

Date of Deposit: September 15, 2003

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C19	Henry et al. (1984). "The gene for human fibroblast interferon (IFB) maps to 9p21." <i>Hum Genet</i> 68: 67-69.
	C20	Houghton et al. (1981). "The absence of introns within a human fibroblast interferon gene." <i>Nucleic Acids Res</i> 9(2): 247-266.
	C21	SPTREMBL Accession Number: <b>Q9QXQ7</b> (October 16, 2001)
	C22	SWISSPROT Accession Number: <b>P01574</b> (August 20, 2001)
	C23	GenBank Accession Number: <b>U87305</b> (May 15, 1997)
	C24	SPTREMBL Accession Number: <b>O08721</b> (July 1, 1997)
	C25	Meager et al. (1979). "Involvement of a gene on chromosome 9 in human fibroblast interferon production." <i>Nature</i> 280(5722): 493-495.
	C26	SPTREMBL Accession Number: <b>O43490</b> (August 20, 2001)
	C27	SPTREMBL Accession Number: <b>O54990</b> (August 20, 2001)
	C28	Ohlsson et al. (1985). "Close linkage of alpha and beta interferons and infrequent duplication of beta interferon in humans." <i>Proc Natl Acad Sci U S A</i> 82(13): 4473-4476.
	C29	Ohno and Taniguchi (1982). "Inducer-responsive expression of the cloned human interferon beta 1 gene introduced into cultured mouse cells." <i>Nucleic Acids Res</i> 10(3): 967-977.
	C30	Online Mendelian Inheritance in Man (OMIM): <b>164975</b>
	C31	GenBank Accession Number: <b>M85301</b> (April 27, 1993)
	C32	SWISSPROT Accession Number: <b>P26434</b> (July 15, 1999)
	C33	SPTREMBL Accession Number: <b>BAB03557</b> (October 11, 2001)
	C34	Owerbach et al. (1981). "Leukocyte and fibroblast interferon genes are located on human chromosome 9." <i>Proc Natl Acad Sci U S A</i> 78(5): 3123-3127.
	C35	GenBank Accession Number: <b>U08813</b> (May 11, 1995)
	C36	SPTREMBL Accession Number: <b>P20065</b> (March 1, 2001)
	C37	Sagar et al. (1984). "Interferon-beta-related DNA is dispersed in the human genome." <i>Science</i> 223(4642): 1312-1315.
	C38	GenBank Accession Number: <b>AC007278</b> (September 30, 2000)
	C39	Taniguchi et al. (1980). "Human leukocyte and fibroblast interferons are structurally related." <i>Nature</i> 285(5766): 547-549.
	C40	SPTREMBL Accession Number: <b>S59638</b> (May 7, 1999)
	C41	Tavernier et al. (1981). "Evidence for a unique human fibroblast interferon (IFN-beta 1) chromosomal gene, devoid of intervening sequences." <i>Nucleic Acids Res</i> 9(3): 461-471.
	C42	Trent et al. (1982). "The molecular basis for beta o thalassaemia intermedia in an Iranian individual." <i>Br J Haematol</i> 52(3): 511-516.
	C43	PIR Accession Number: <b>T08881</b> (July 21, 2000)
	C44	Wootton and Federhen (1996). "Analysis of compositionally biased regions in sequence databases." <i>Methods Enzymol</i> 266: 554-571.
	C45	SPTREMBL Accession Number: <b>AAF73049</b> (March 30, 2001)
	C46	Leonardo, et al. (1997). "Vertebrate homologues of <i>C elegans</i> UNC-5 are candidate netrin receptors" <i>Nature</i> 386(6627): 833-838.
	C47	EMBL Database Accession Number: <b>BC009333</b> (06/16/01).
	C48	Partial International Search Report for PCT/US01/24225. Mailed on July 5, 2002.
	C49	EMBL Database Accession Number: <b>B17039</b> (4-March-2000)
	C50	International Search Report for PCT/US01/24225. Mailed on November 8, 2002.
	C51	Andrade et al. (2001) "Protein repeats: structures, functions, and evolution" <i>J. Structural. Biol.</i> 134:117-31.
	C52	Ngo et al. (1994) "Computational Complexity, Protein Structure Prediction, and the Levinthal Paradox" in <i>The Protein Folding Problem and Tertiary Structure Prediction</i> , Merz and Le Grand, eds. pp. 433-506.
	C53	Warren et al. (1998) "A Mutation with the leucine-rich repeat domain of the Arabidopsis disease





OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam. Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
		resistance gene RPS5 partially suppresses multiple bacterial and downy mildew resistance genes" Plant Cell <u>10</u> :1439-52.
	C54	Hugot et al. (2002) "Update on genetics of inflammatory bowel disease" Curr. Opin. Gastroenterol. <u>18</u> :410-15.
	C55	Lehmann et al. (2001) "A novel keratocan mutation causing autosomal recessive cornea plana" Invest Ophthalmol Vis Sci. <u>42</u> : 3118-22.
	C56	Li et al. (1995) "The genetic defect in two well-studied cases of Bernard-Soulier syndrome: a point mutation in the fifth leucine-rich repeat of platelet glycoprotein Ib $\alpha$ ." Blood <u>86</u> : 3805-14.
	C57	Gueneron et al. (2000) "Two novel proteins, PopB, which has functional nuclear localization signals, and PopC, which has a large leucine-rich repeat domain, are secreted through the Hrp-secretion apparatus of Ralstonia solanacearum" Mol. Microbiol. <u>36</u> : 261-77.
	C58	Kobe et al. (2001) "The leucine-rich repeat as a protein recognition motif" Curr. Opin. Struct. Biol. <u>11</u> :725-32.
	C59	Wells (1990) "Additivity of mutational effects in proteins" Biochemistry <u>29</u> :8509-17.
	C60	Skolnick et al. (2000) "From genes to protein structure and function: novel applications of computational approaches in the genomic era" Trends in Biotech. <u>18</u> :34-39.
	C61	Smith et al. (1997) "The challenges of genome sequence annotation of 'the devil is in the details'" Nature Biotechnol. <u>15</u> : 1222-23.
	C62	Doerks et al. (1998) "Protein annotation: detective work for function prediction" Trends in Genetics <u>14</u> : 248-50.
	C63	Hugot et al. (2001) "NOD2 (CARD15), the first susceptibility gene for Crohn's disease" Gut <u>49</u> :752-4.
	C64	Bork (2000). "Powers and Pitfalls in Sequence Analysis: The 70% Hurdle" Genome Research <u>10</u> : 398-400.
	C65	Bork (1996). "Go Hunting in Sequence Databases but Watch out for the Traps" Trends in Genomics <u>12</u> : 425-27.
	C66	Brenner (1999). "Errors in Genome Annotation" <u>15</u> : 132-133.

\* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_\_\_\_, filed \_\_\_\_\_, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

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